

# Olist Business Analysis

Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------



## Business Analysis Summary

Olist is a comprehensive e-commerce platform that bridges the gap between SMBs and large online marketplaces. It offers a range of services, including marketplace integration, logistics support, customer service, and analytics, helping sellers streamline their operations and increase their sales. Through its revenue-sharing and subscription-based model, Olist aligns its success with the success of its sellers, driving growth and efficiency in the e-commec..

### Key Insights:

**Product Categories:**

- Top categories include Home, Sports and Leisure, and Electronics
- Products vary widely in price, from high-value items like furniture to more affordable products like garden tools

**Order Value Distribution:**

- Average order value is R\$138, significantly higher than the median order value of R\$87 suggesting a right-skewed distribution with a long tail of higher-value orders
- Higher-value orders, although fewer in number, have a substantial impact on total sales

**High-Value Orders:**

- Olist has 1.7k orders that are over R\$1,000 in value contributing to R\$1.5M in total sales
- The 1.7k orders make up less than 2% of total orders but account for over 11% of total sales
- About 75% of orders are roughly under R\$150
- The top 25 percentile by order value show a range of roughly R\$150 to as high as R\$13k
- high-value orders suggests the occurrence of bulk purchases or the sale of big-ticket items

**Customer reviews:**

- High variability in sales month to month contributed to poor delivery performance and lower customer satisfaction scores

**Sellers:**

...

The dataset has been anonymized and was generously provided by Olist.

### Possible Strategic Initiatives:

**Target Marketing and Customer Segmentation:**

- Segment high-value and low-value customers
- Implement a loyalty program or exclusive benefits for high-spending customers to increase retention and encourage repeat purchases
- Segment based on categorical interests

**Enhanced Sales Forecasting**

- Inaccurate sales forecasts can have a ripple effect and can lead to issues with inventory, delivery performance, and customer satisfaction
- Forecasting is the foundational piece in planning
- Understand if logistics partners have optimal capacity

**Seller Management:**

- Provide additional support and resources to top sellers who contribute significantly to total sales
- This could include dedicated account managers, advanced analytics tools, and marketing support
- Implement programs to help smaller sellers grow and improve their performance
- This could involve training, resources on best practices, and incentives for meeting sales targets

Olist Business Analysis

Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------

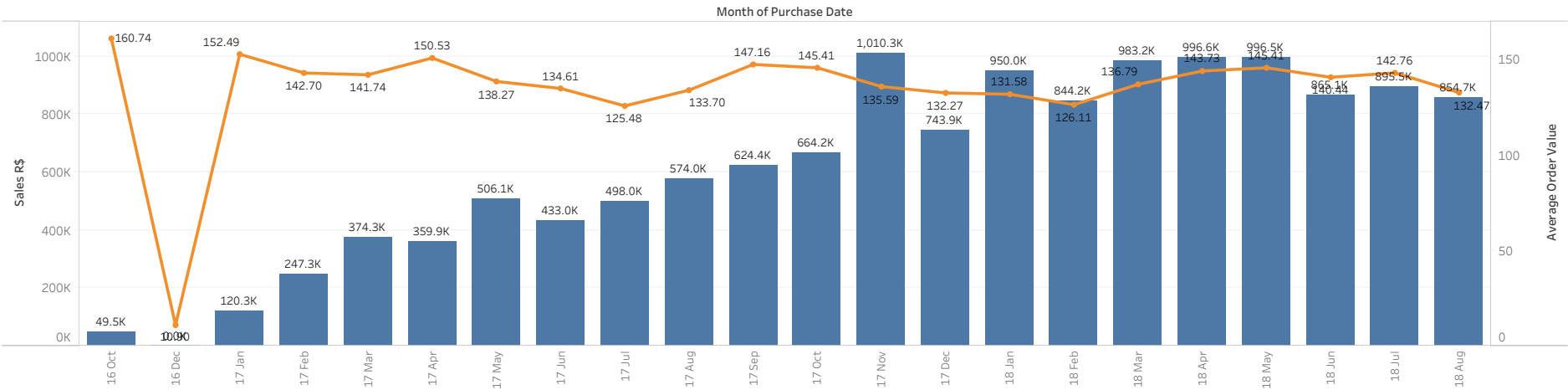


KPIs by Month

KPIs

	Month of Purchase Date																			
	16 Oct	16 Dec	17 Jan	17 Feb	17 Mar	17 Apr	17 May	17 Jun	17 Jul	17 Aug	17 Sep	17 Oct	17 Nov	17 Dec	18 Jan	18 Feb	18 Mar	18 Apr	18 May	18 Jun
Total Sales	49,508	11	120,313	247,303	374,344	359,927	506,071	433,039	498,031	573,972	624,402	664,219	1,010,271	743,914	950,030	844,179	983,213	1,010,271	1,010,271	1,010,271
Order Count	324	1	800	1,780	2,682	2,404	3,700	3,245	4,026	4,331	4,285	4,631	7,544	5,673	7,269	6,728	7,211	7,544	7,544	7,544
AOV	160.74	10.90	152.49	142.70	141.74	150.53	138.27	134.61	125.48	133.70	147.16	145.41	135.59	132.27	131.58	126.11	136.79	143.73	145.41	140.44
On Time Rate	82.7%	100.0%	91.0%	90.1%	90.6%	89.5%	92.9%	93.7%	93.5%	94.0%	92.6%	92.7%	84.6%	89.9%	91.7%	83.7%	78.7%	84.6%	89.9%	91.7%

Sales and AOV By Month



Olist Business Analysis

Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------



Total Sales by Category and Subcategory

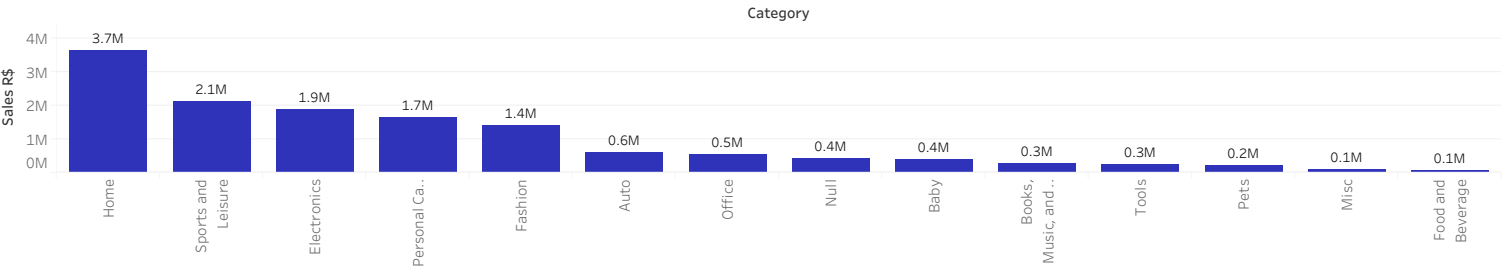
Product Count

Distinct count of Product Id	Distinct count of Subcategory	Distinct count of Category
32,951	68	13

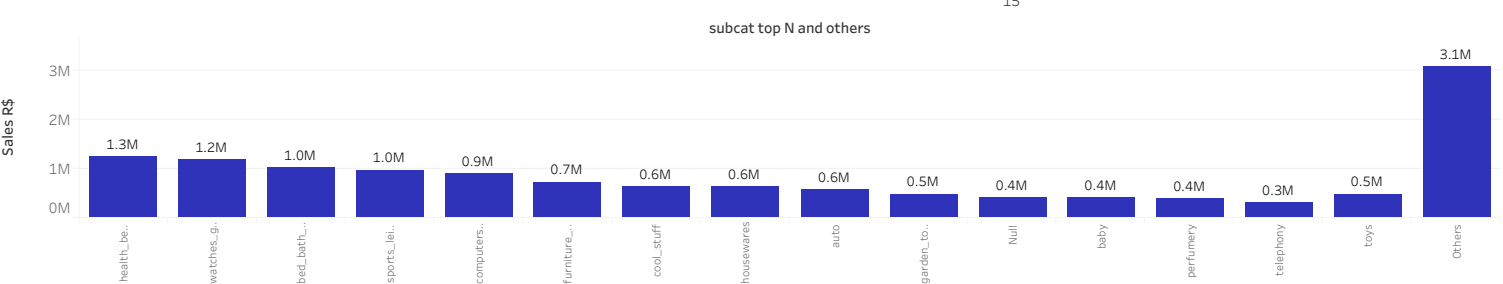
Cat Sales Table

Category	
Home	3.65M
Sports and Leisure	2.11M
Electronics	1.89M
Personal Care	1.66M
Fashion	1.38M
Auto	0.59M
Office	0.54M
Null	0.42M
Baby	0.41M
Books, Music, and Movies	0.28M
Tools	0.27M
Pets	0.21M
Misc	0.09M
Food and Beverage	0.07M
Grand Total	13.59M

Cat Sales



Subcat Sales



Olist Business Analysis

Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------



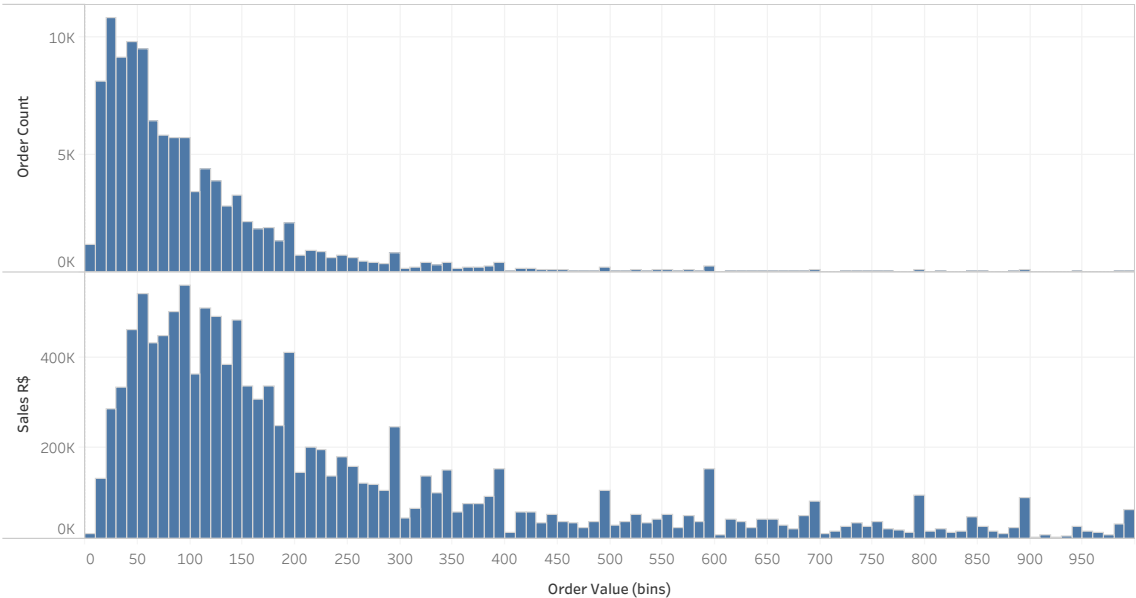
Order Count and Sales

Order Value Bin Size  
10

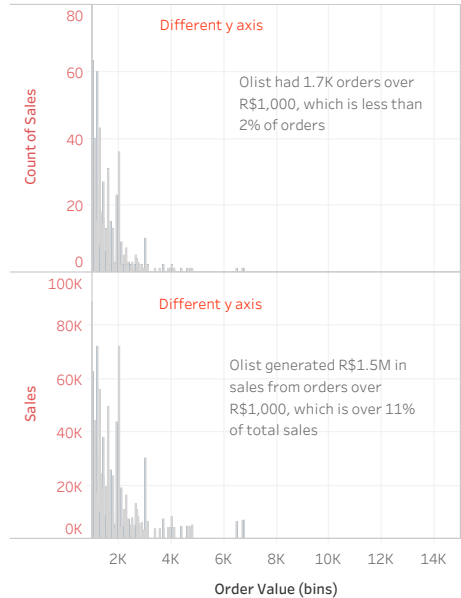
Descriptive Statistics

AOV	AOV Standard Deviation	Max AOV	Median AOV	Min AOV	Order Count	Total Sales
137.75	210.64	13,440.00	86.90	0.85	99,441	13.59M

Histogram Head



Histogram Tail (diff y axis)



Average order value for Olist has a much higher mean of R\$138 than the median of R\$87, which suggests a long tail of higher-value orders. This is visually evident in the histograms, where the distribution of order values shows a significant number of high-value orders that elevate the average. Specifically, we can see that 1.7k orders were over R\$1000 and made up R\$1.5M in total sales. This indicates that less than 2% of total orders contributed to over 11% of total sales.

This disparity highlights the importance of high-value orders in driving overall revenue. While the majority of orders are clustered around lower values, the presence of these high-value orders significantly impacts the business's financial performance.

This insight can guide strategic decisions in several areas:

- customer segmentation
- product and pricing
- inventory management
- sales and revenue forecasting

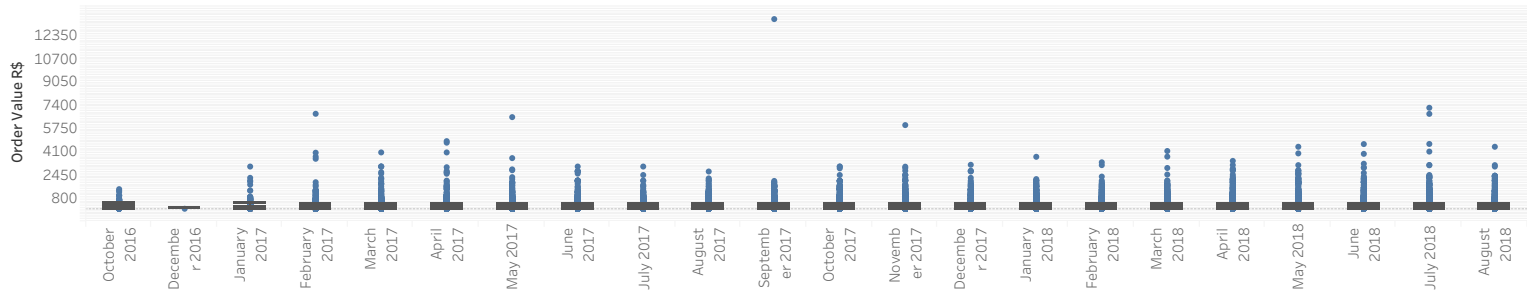
Olist Business Analysis

Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------



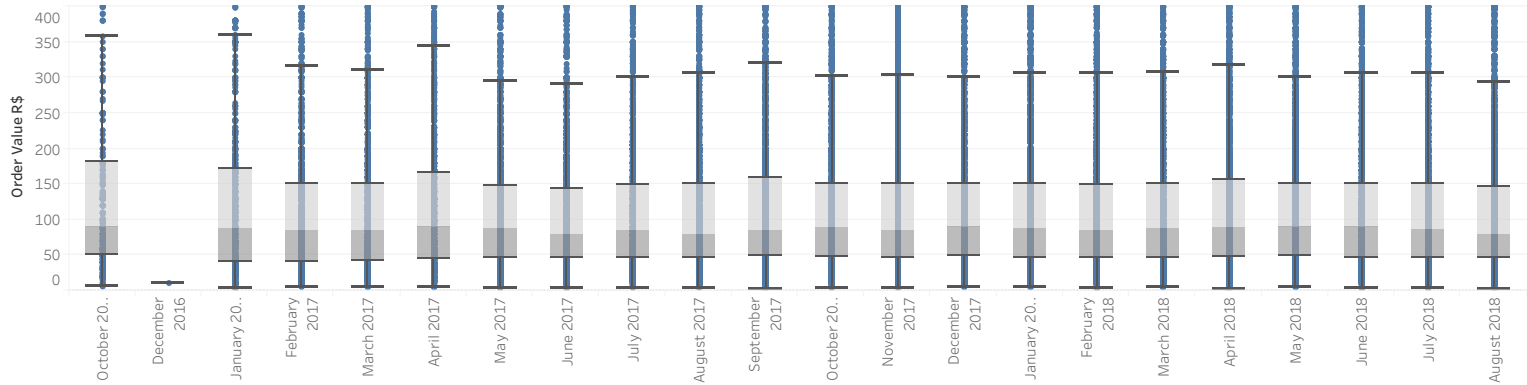
Order Value Distribution

Boxplots



The boxplots provide insightful visual representations of order values across different months. They reveal that about 75% of the orders are roughly under R\$150 for the majority of months where we have sales data. This indicates that the bulk of Olist's orders are relatively modest in value.

Boxplots Zoom In



Additionally, the boxplots show that the maximum order value has reached as high as R\$13,000, and orders beyond the 75th percentile can vary drastically in size. This wide range of order values could indicate the following:

- Diverse customer base
- High variety in product offerings
- High variability in product pricing including big-ticket items
- Selling items in bulk

Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------

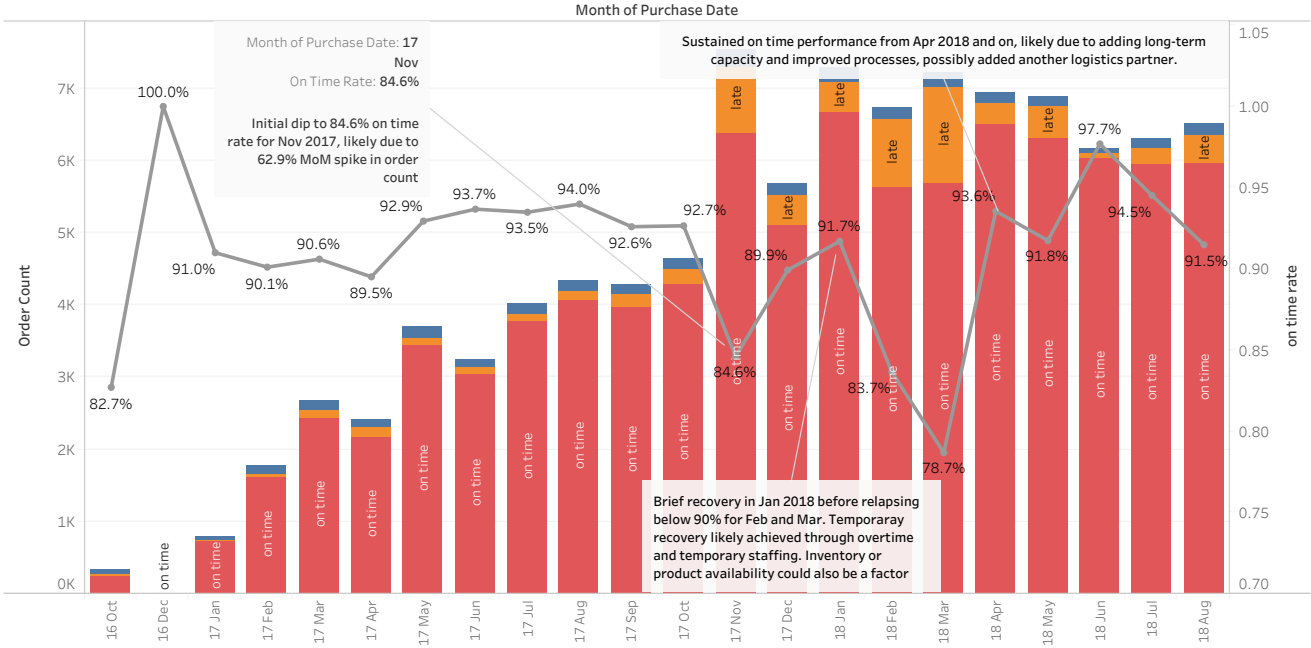


# Order Count and On Time Rate Trends

Order Count and Sales By Month

Month of Purchase Date	On Time Rate	Order Count	Total Sales
16 Sep	0.0%	4	267
16 Oct	82.7%	324	49,508
16 Dec	100.0%	1	11
17 Jan	91.0%	800	120,313
17 Feb	90.1%	1,780	247,303
17 Mar	90.6%	2,682	374,344
17 Apr	89.5%	2,404	359,927
17 May	92.9%	3,700	506,071
17 Jun	93.7%	3,245	433,039
17 Jul	93.5%	4,026	498,031
17 Aug	94.0%	4,331	573,972
17 Sep	92.6%	4,285	624,402
17 Oct	92.7%	4,631	664,219
17 Nov	84.6%	7,544	1,010,271
17 Dec	89.9%	5,673	743,914
18 Jan	91.7%	7,269	950,030
18 Feb	83.7%	6,728	844,179
18 Mar	78.7%	7,211	983,213
18 Apr	93.6%	6,939	996,648
18 May	91.8%	6,873	996,518
18 Jun	97.7%	6,167	865,124
18 Jul	94.5%	6,292	895,507
18 Aug	91.5%	6,512	854,686
18 Sep	0.0%	16	145
18 Oct	0.0%	4	
Grand Total	90.4%	99,441	13,591,644

Order Count and On Time Rate



Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------



# Customer Review Trends

## Review Categories

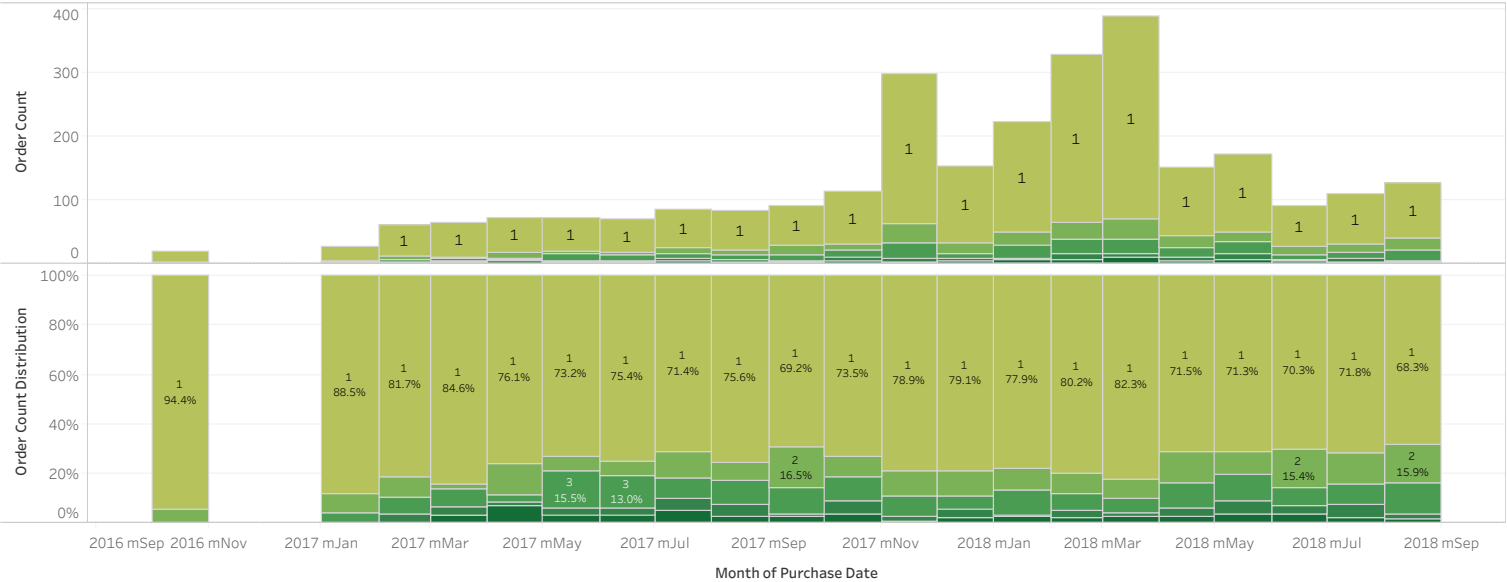
Review Cat								
did_not_leave_a_review	Uncategorized	good_experience	arrived_early	did_not_receive	good_quality	poor_quality	wrong_product	poor_experience
58,708	19,361	8,051	6,660	2,789	2,784	397	339	328

Click on above review categories to filter the visuals on the right.

If we filter on "did\_not\_receive" or "poor\_experience" we can see the poor reviews correlate with the big increase in orders starting Nov 2017, highlighting the importance of accurate forecasting.

- Review Score
- 1
  - 2
  - 3
  - 4
  - 5

Customer Review Trends



Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------



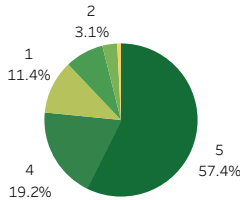
# Customer Reviews by Review Category

Review Score by Category

Review Cat	Review Score				
	1	2	3	4	5
good_experience	157	86	350	1,268	6,190
arrived_early	84	44	166	866	5,500
did_not_receive	2,141	274	232	77	65
good_quality	45	34	177	552	1,976
poor_quality	241	58	65	18	15
wrong_product	216	42	36	21	24
poor_experience	209	43	31	16	29
Grand Total	3,093	581	1,057	2,818	13,799

Table excludes orders where no review was provided and uncategorized reviews

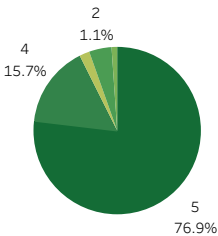
Review Score Pie Chart



Crossfilter: Filter by clicking categories in the table to the left

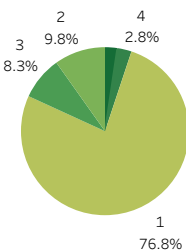


Review Score Pie Chart (Good Experience)



Good Experience: This review category had the most 5 reviews and shows how a good experience translates to high review scores. Over 90% of reviews in this category scored between 4 and 5.

Review Score Pie Chart (Did Not Receive)



Did Not Receive: This review category had the most 1 reviews and shows how critical it is to get customers their orders on time. Over 85% of reviews in this category scored between 1 and 2.

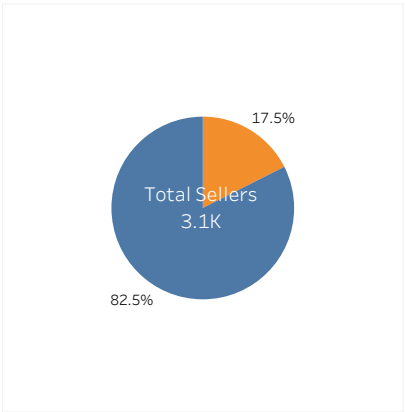


Business Analysis Summary	KPIs by Month	Total Sales by Category and Subcate...	Order Count and Sales	Order Value Distribution	Order Count and On Time Rate Trends	Customer Review Trends	Customer Reviews by Review Category	Seller Insights
---------------------------	---------------	--	-----------------------	--------------------------	-------------------------------------	------------------------	-------------------------------------	-----------------

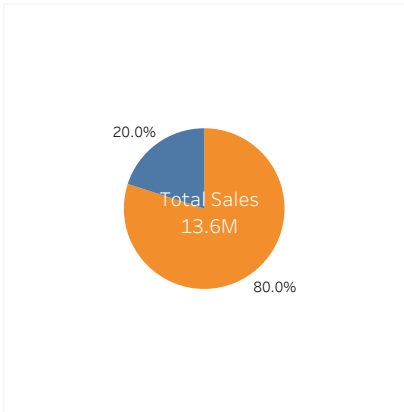


## Seller Insights: Pareto Principle or 80/20 Rule

Seller Count Pie Chart



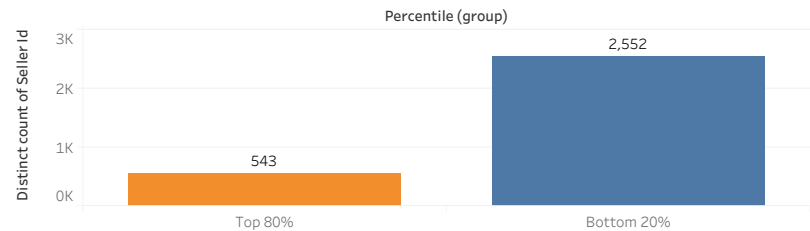
Seller Sales Pie Chart



Percentile (group)  
Top 80%  
Bottom 20%

Top 17.5% of Sellers Make up 80% of Total Sales for Olist

Seller Count Percentile Group



Seller Sales Percentile Group

